

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-30. (Canceled).

31. (New) A fuel oil additive, which consists of at least one oil-soluble metal salt of an organic acid of a general formula MR, wherein R is an organic acid radical and the corresponding organic acid is a C₁ - C₂₅ saturated or unsaturated aliphatic acid or a polybasic carboxylic acid, naphthenic acid or aromatic acid, M is a metal cation, metal complex ion or metal clathrate compound ion,

said oil-soluble metal salt of the organic acid is selected from the group consisting of an alkali metal salt of an organic acid, a combination of an alkali metal salt of an organic acid and an alkali-earth metal salt of an organic acid and/or a rare-earth metal salt of an organic acid, a combination of an alkali metal salt of an organic acid and an alkali-earth metal salt of an organic acid and/or a transition metal salt of an organic acid, a combination of an alkali metal salt of an organic acid and an alkali-earth metal salt of an organic acid and rare-earth metal salt of an organic acid and transition metal salt of organic acid;

wherein said alkali metal is lithium, sodium, potassium, rubidium or cesium, and the corresponding cation is a monovalent ion; said alkali-earth metal is beryllium, magnesium, calcium, strontium or barium, and the corresponding cation is a divalent ion; said rare-earth metal is scandium, yttrium, lanthanum, cerium or neodymium; and said transition metal is selected from zinc or titanium.

32. (New) The fuel oil additive as claimed in Claim 31, wherein said organic acid is a C₁- C₁₀ saturated or unsaturated aliphatic acid or a polybasic carboxylic acid, naphthenic acid or

aromatic acid.

33. (New) A fuel oil additive as claimed in Claim 31, wherein said organic acid is a C₁-C₂₅ saturated or unsaturated aliphatic acid or a polybasic carboxylic acid, naphthenic acid or aromatic acid.

34. (New) The fuel oil additive as claimed in Claim 31, which consists of more than one oil-soluble metal salt of an organic acid selected from the group consisting of a combination of one or more alkali metal salts of an organic acid and one or more alkali-earth metal salts of an organic acid and/or one or more rare-earth metal salts of an organic acid, a combination of one or more alkali metal salts of an organic acid and one or more alkali-earth metal salts of an organic acid and/or one or more transition metal salts of organic acid, wherein the ratio of one or more alkali metal salts of organic acid to the other component is 5-80%.

35. (New) The fuel oil additive as claimed in Claim 34, which consists of more than one oil-soluble metal salts of organic acid selected from the group consisting of a combination of one or more alkali metal salts of an organic acid and one or more alkali-earth metal salts of an organic acid and/or one or more rare-earth metal salts of an organic acid, wherein the ratio of one or more alkali metal salts of an organic acid to the other component is 5-80%.

36. (New) The fuel oil additive as claimed in Claim 35, wherein said one or more alkali metal salts comprises at least one lithium salt of an organic acid.

37. (New) The fuel oil additive as claimed in Claim 31, which also includes a gasoline additive, diesel oil additive, kerosene additive, heavy oil additive and residual oil additive.

38. (New) The gasoline antiknock agent, which consists of at least one oil-soluble metal salt of an organic acid of a general formula MR, wherein R is an organic acid radical and the corresponding organic acid is a C₁-C₂₅, saturated or unsaturated aliphatic acid or a polybasic

carboxylic acid, naphthenic acid or aromatic acid, M is a metal cation, metal complex ion or metal clathrate compound ion;

said one or more oil-soluble metal salts of the organic acid is selected from the group consisting of an alkali metal salt of organic acid, a combination of an alkali metal salt of an organic acid and an alkali-earth metal salt of an organic acid and/or rare-earth metal salt of an organic acid, a combination of an alkali metal salt of an organic acid and an alkali-earth metal salt of an organic acid and/or a transition metal salt of an organic acid, a combination of an alkali metal salt of an organic acid and an alkali-earth metal salt of an organic acid and a rare-earth metal salt of an organic acid and a transition metal salt of an organic acid;

wherein said alkali metal is lithium, sodium, potassium, rubidium or cesium, and the corresponding cation is a monovalent ion, said alkali-earth metal is beryllium, magnesium, calcium, strontium or barium, and the corresponding cation is a divalent ion; said rare-earth metal is scandium, yttrium, lanthanum, cerium or neodymium; and said transition metal is selected from zinc or titanium.

39. (New) The gasoline antiknock agent as claimed in Claim 38, wherein said organic acid is a C₁-C₁₀ saturated or unsaturated aliphatic acid or a polybasic carboxylic acid, naphthenic acid or aromatic acid.

40. (New) A gasoline antiknock agent as claimed in Claim 38, wherein said organic acid is a C₁-C₂₅, saturated or unsaturated aliphatic acid or a polybasic carboxylic acid, naphthenic acid or aromatic acid.

41. (New) The gasoline antiknock agent as claimed in Claim 38, which consists of more than one oil-soluble metal salt of an organic acid selected from the group consisting of a combination of one or more alkali metal salts of an organic acid and one or more alkali-earth

metal salts of an organic acid and/or one or more rare-earth metal salts of an organic acid, a combination of one or more alkali metal salts of an organic acid and one or more alkali-earth metal salts of an organic acid and/or one or more transition metal salts of an organic acid, wherein the ratio of one or more alkali metal salt of an organic acid to the other component is 5-80%.

42. (New) The gasoline antiknock agent as claimed in Claim 41, which consists of more than one oil-soluble metal salt of an organic acid selected from the group consisting of a combination of one or more alkali metal salts of an organic acid and one or more alkali-earth metal salts of an organic acid and/or one or more rare-earth metal salts of an organic acid, wherein the ratio of one or more alkali metal salts of organic acid to the other component is 5-80%.

43. (New) The gasoline antiknock agent as claimed in Claim 42, wherein said one or more alkali metal salts comprises at least one lithium salt of an organic acid.

44. (New) A fuel oil containing the fuel oil additive as claimed in Claim 31, wherein the amount of said fuel oil additive is 0.1-15 g per liter of said fuel oil.

45. (New) A fuel oil as claimed in Claim 44, which is gasoline or diesel oil.

46. (New) A gasoline containing the gasoline antiknock agent as claimed in Claim 38, wherein the amount of the gasoline antiknock agent is 0.1-15 g per liter of said gasoline.

47. (New) A method of increasing the octane number and improving the anti-knock property of gasoline comprising adding the gasoline anti-knock agent as claimed in claim 38 to gasoline in an amount of from 0.1 to 15 g of the gasoline anti-knock agent per liter of gasoline.